



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

PCT/IB 03/04247

A. CLASSIFICATION OF SUBJECT MATTER					
IPC 7	G01B5/012	G01B5/016	G01B7/012	G01B7/016	G01B11/03

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 766 653 A (MC KAY R) 23 October 1973 (1973-10-23) abstract column 2, line 31 -column 3, line 38; figures 1-4 ---	1-7
X	DE 20 19 895 A (FROHNE HEINRICH PROF DR ING) 4 November 1971 (1971-11-04) page 3, line 3-22; figure 1 ---	1-7
X	US 1 854 346 A (EDWARD OSTLIND) 19 April 1932 (1932-04-19) page 1, line 46-99; figure 1 ---	1,2,4,5, 7
X	US 3 193 937 A (FAY ALLER WILLIS) 13 July 1965 (1965-07-13) column 2, line 29-49; figure 3 ---	1,2,4,5, 7
		-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

- *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *8* document member of the same patent family

Date of the actual completion of the International search

27 November 2003

Date of mailing of the International search report

03/12/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Beyfuß, M

INTERNATIONAL SEARCH REPORT

PCT/IB 03/04247

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 694 184 A (PRYOR TIMOTHY R) 15 September 1987 (1987-09-15) column 5, line 38 -column 6, line 46; figure 3 ----	1,2,5
X	EP 0 415 579 A (RENISHAW PLC) 6 March 1991 (1991-03-06) page 5, line 32 -page 6, line 26; figure 3 ----	1,2,4-7
X	US 5 103 572 A (RICKLEFS UBBO) 14 April 1992 (1992-04-14) column 2, line 57 -column 3, line 17; figure 1 ----	1,2,4,5, 7
X	WO 00 60310 A (HOLLOWAY ALAN JAMES ; JONAS KEVYN BARRY (GB); RENISHAW PLC (GB); WR) 12 October 2000 (2000-10-12) page 6, line 11 -page 7, line 22; figures 1,2 page 10, line 22 -page 15, line 3; figures 4A-4E -----	1,2,4,5, 7

INTERNATIONAL SEARCH REPORT

PCT/IB 03/04247

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
US 3766653	A 23-10-1973	DE 2248967 A1 FR 2155581 A5 GB 1348367 A JP 48046350 A		12-04-1973 18-05-1973 13-03-1974 02-07-1973
DE 2019895	A 04-11-1971	DE 2019895 A1		04-11-1971
US 1854346	A 19-04-1932	NONE		
US 3193937	A 13-07-1965	NONE		
US 4694184	A 15-09-1987	US 4453082 A US 4839526 A US 4583000 A		05-06-1984 13-06-1989 15-04-1986
EP 0415579	A 06-03-1991	EP 0415579 A1 JP 3223609 A US 5118956 A		06-03-1991 02-10-1991 02-06-1992
US 5103572	A 14-04-1992	DE 3920716 C1 DE 59000402 D1 EP 0405176 A1 JP 3042505 A		29-11-1990 03-12-1992 02-01-1991 22-02-1991
WO 0060310	A 12-10-2000	EP 1086354 A1 WO 0060310 A1 JP 2002541445 T US 6633051 B1		28-03-2001 12-10-2000 03-12-2002 14-10-2003